

FIG. 1

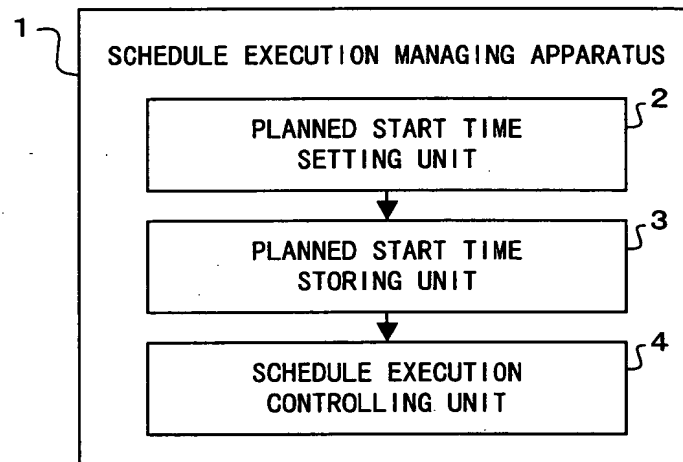


FIG. 1

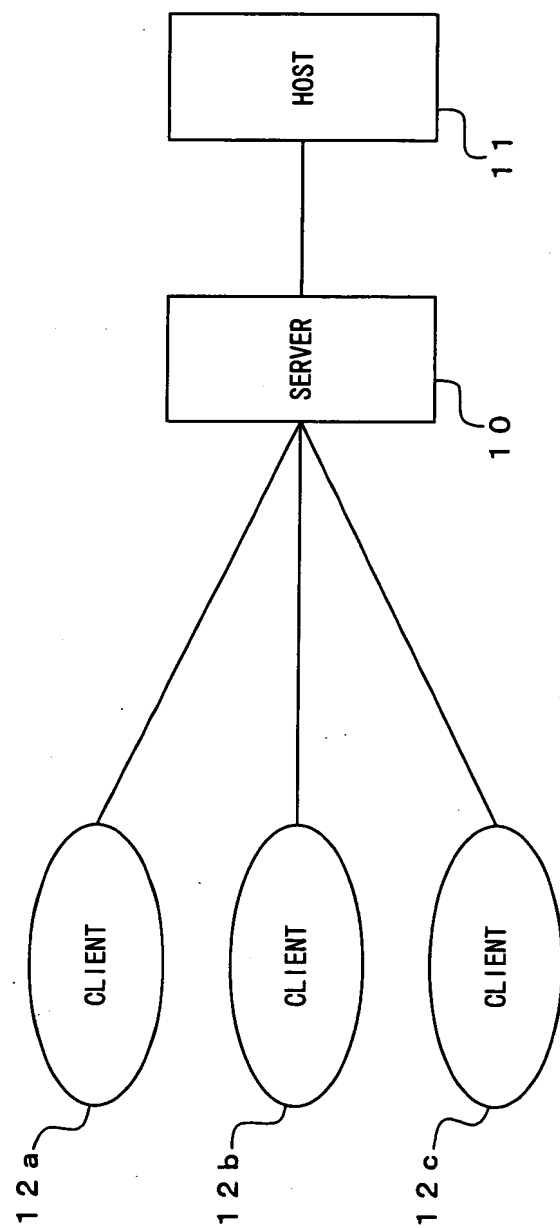


FIG. 2

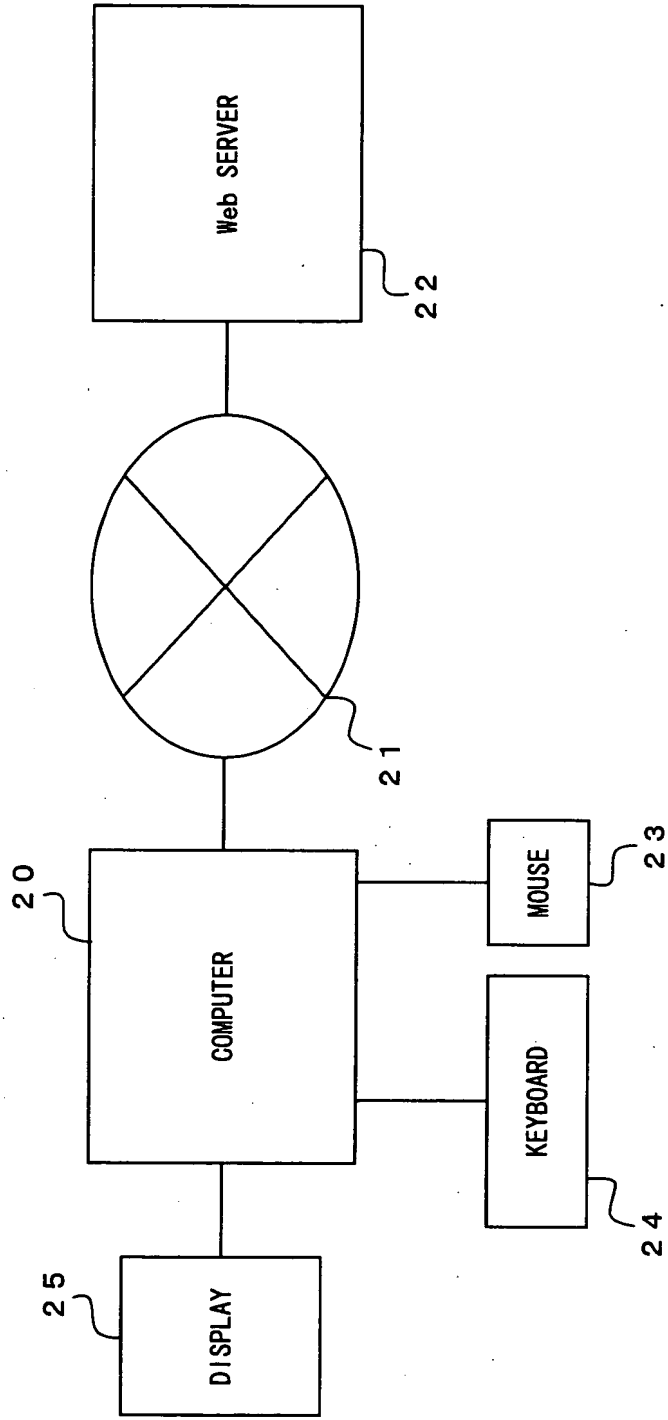


FIG. 3

The diagram illustrates the architecture of a schedule management system, divided into three main functional areas:

- Schedule Reserving Unit (31):** This unit is responsible for managing the initial schedule data. It contains:
 - Schedule Reserving Unit (31):** The overall container for the reserving logic.
 - Editing Unit (34):** Receives **Schedule Information Change Input** and sends a **Change Notification Request** to the Change Notifying Unit.
 - Change Notifying Unit (35):** Responds to the request by sending a **Schedule Information Change Notification** to the Request Processing Unit in the executing unit.
- Schedule Executing Unit (32):** This unit manages the execution of schedules. It contains:
 - Request Processing Unit (36):** Receives notifications and sends an **Update/Registration** signal to the Base Timetable.
 - Schedule Execution Managing Unit (37):** Coordinates the execution process.
 - Timetable (39) and Base Timetable (38):** Data structures for scheduling. The Base Timetable is updated/registered by the Request Processing Unit and referenced by the Execution Thread.
 - Invoking Threads:** These threads interact with the Execution Thread and the Schedule Execution Managing Unit.
 - Execution Thread (40):** Executes the schedule, receiving a **Reference** from the Base Timetable and sending an **Execution Result** back to the Request Processing Unit.
- Schedule Information File (33):** A persistent storage component that is **Read** by the Request Processing Unit and **Read/Write** by the Editing Unit.

FIG. 4

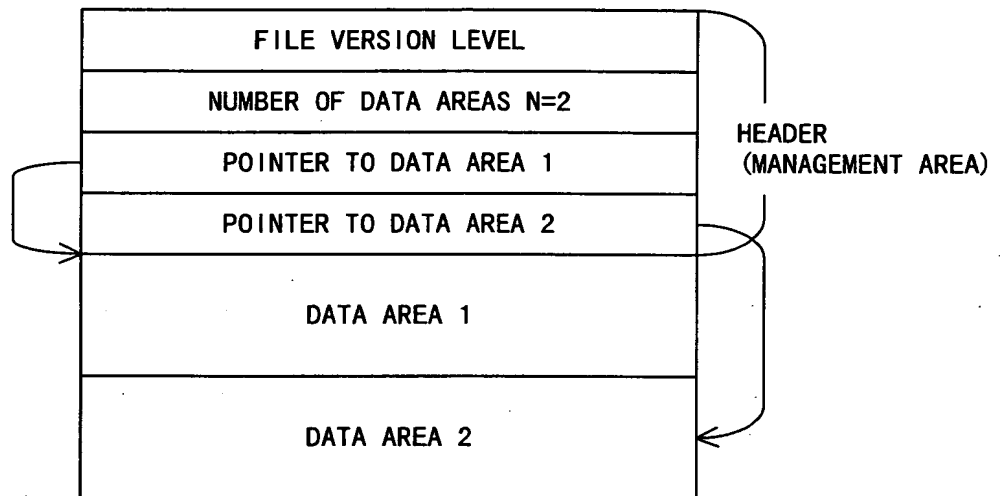
[illegible]

FIG. 5

00041074 00000000

NUMBER OF RECORDS N1
RECORD 1
RECORD 2
· · ·
RECORD N1

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VARIABLE LENGTH							
RECORD LENGTH	SCHEDULE NAME	EXISTING ATTRIBUTE INFORMA- TION	TIME SPECIFI- CATION CLASSI- FICATION	OFFSET	DEPEND- ENCY SOURCE SCHEDULE NAME	BASE TIME NAME	SCHEDULE CONTENTS

FIG. 7

NUMBER OF RECORDS N2		
BASE TIME NAME 1		RECORD 1
BASE TIME 1		
BASE TIME NAME 2		RECORD 2
BASE TIME 2		
⋮		
BASE TIME NAME N2		RECORD N2
BASE TIME N2		

FIG. 8

TABLE 1. CONTINUED

VARIABLE LENGTH										
RECORD LENGTH	CHANGE FLAG	SCHEDULE NAME	TIME SPECIFI- CATION CLASSI- FICATION	PLANNED START TIME	END TIME	OFFSET	DEPEND- ENCY SOURCE SCHEDULE NAME	BASE TIME NAME	STATE	SCHEDULE CONTENTS

FIG. 9

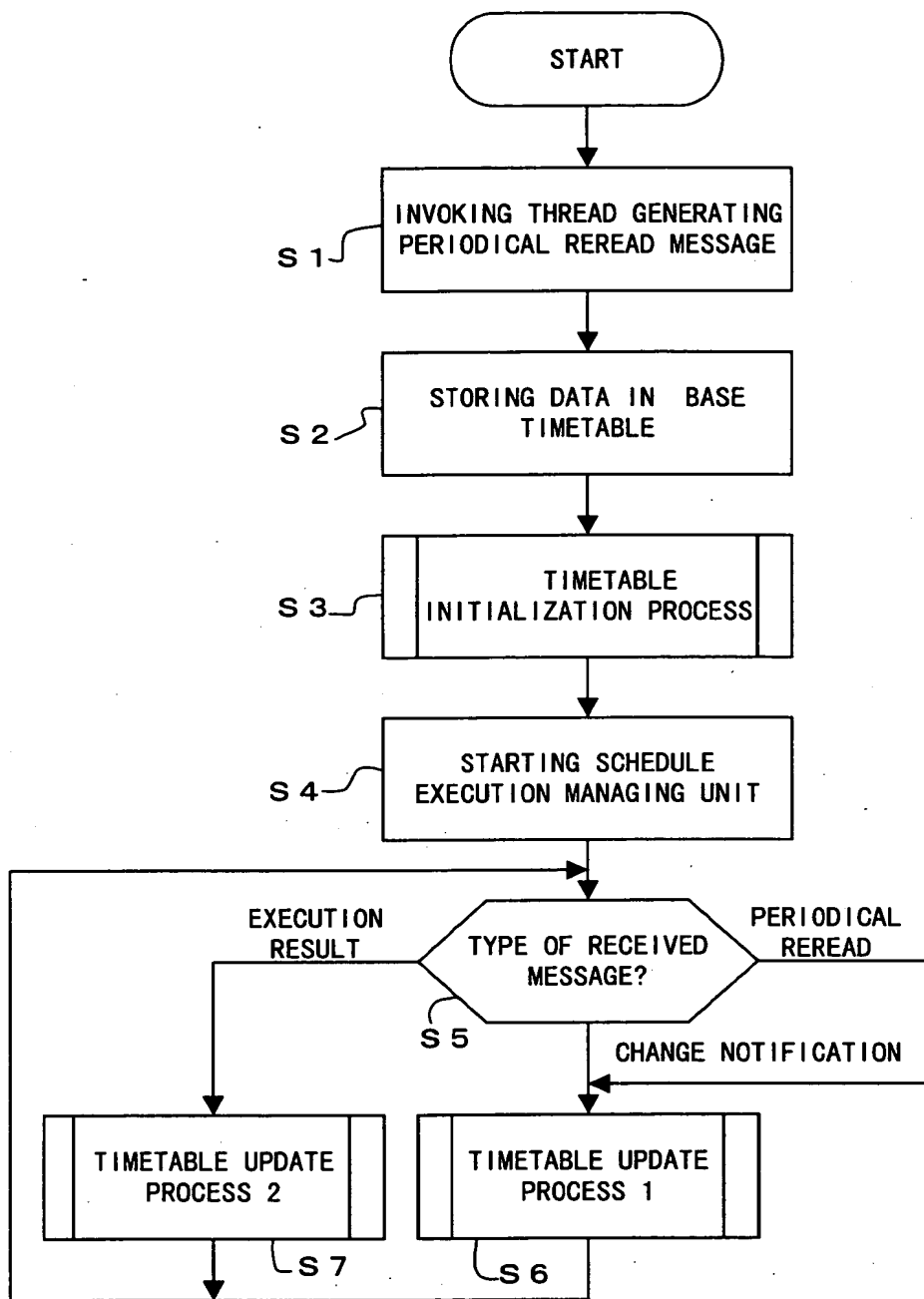


FIG. 10

FIG. 11

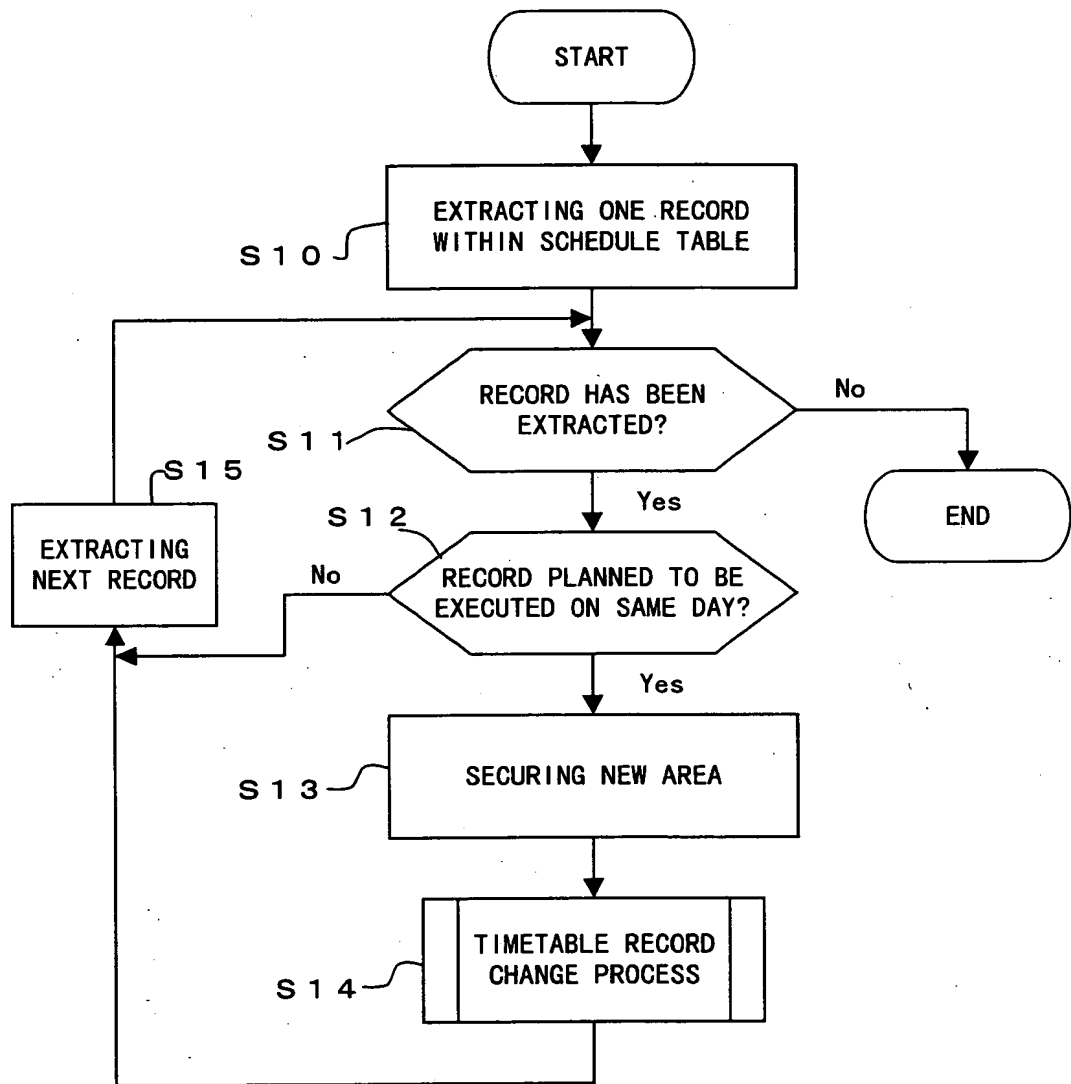


FIG. 11

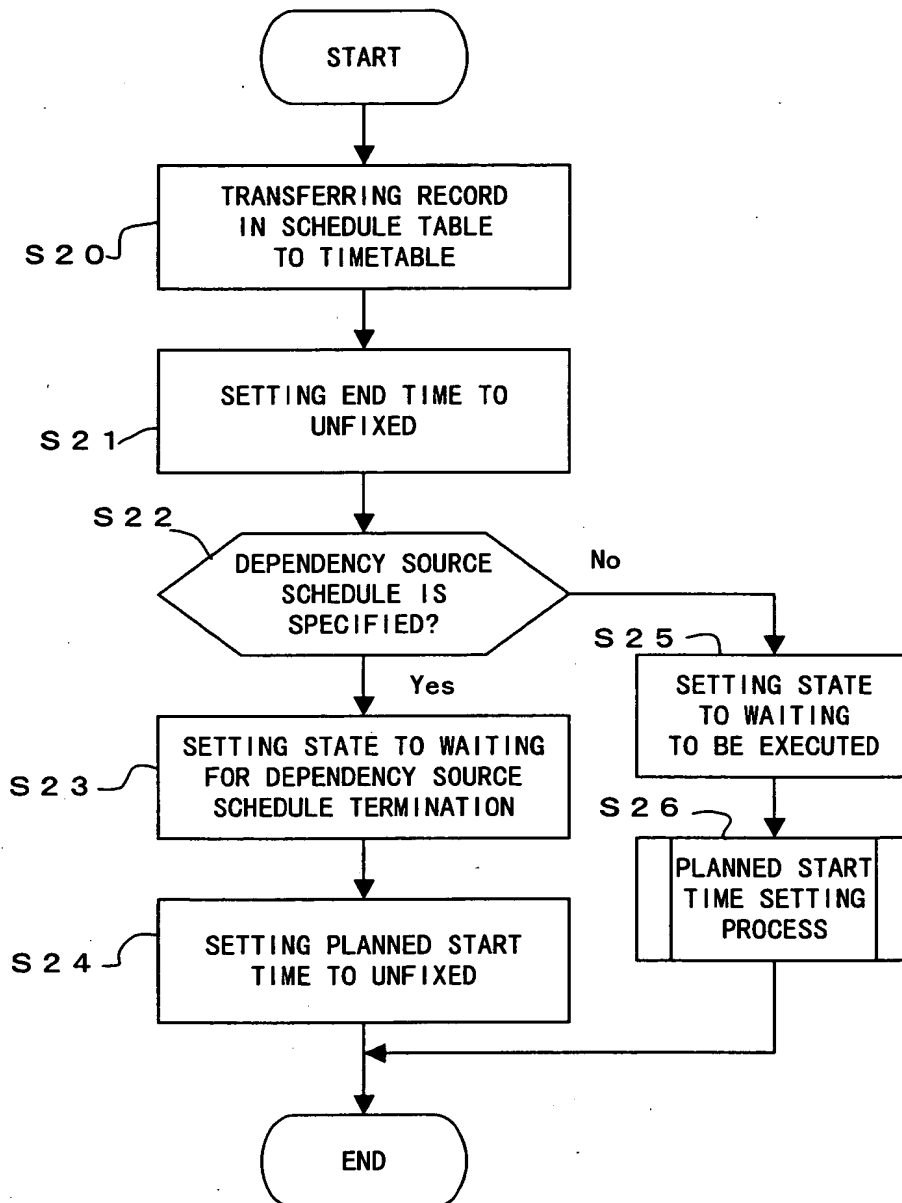


FIG. 12

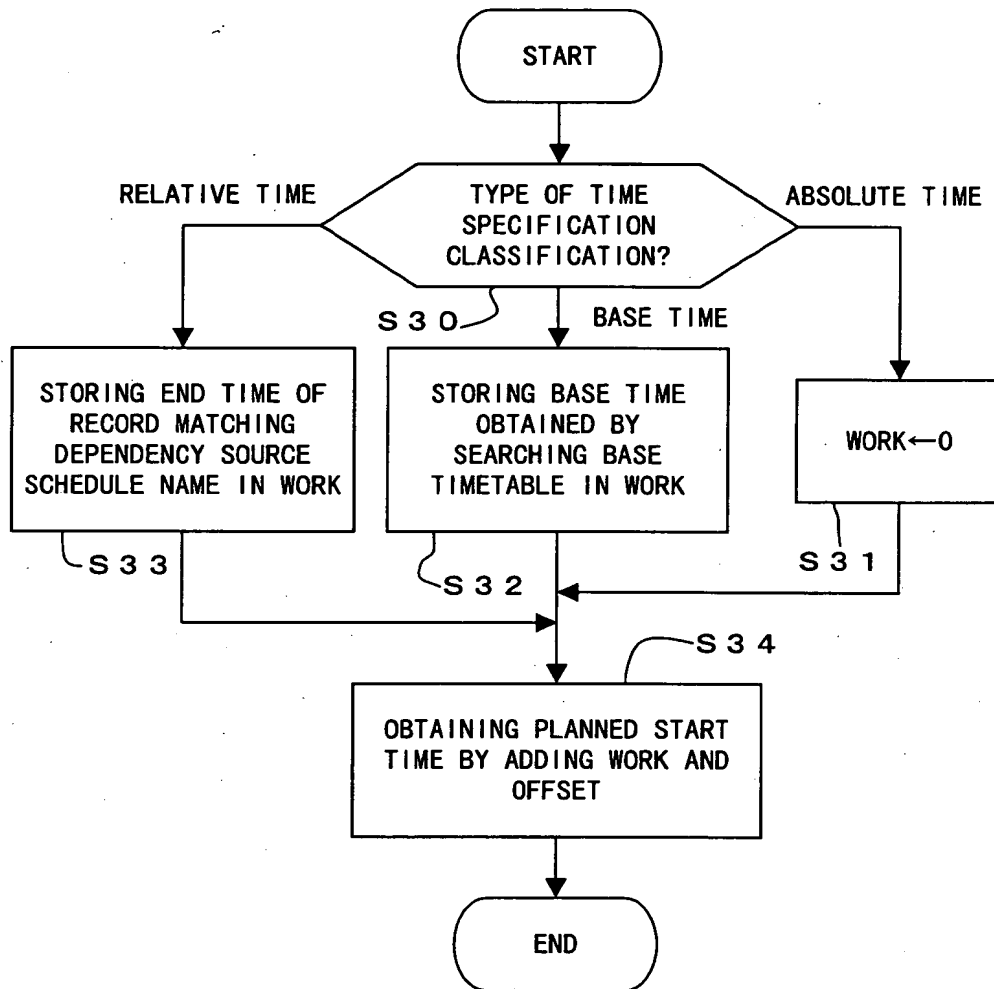


FIG. 13

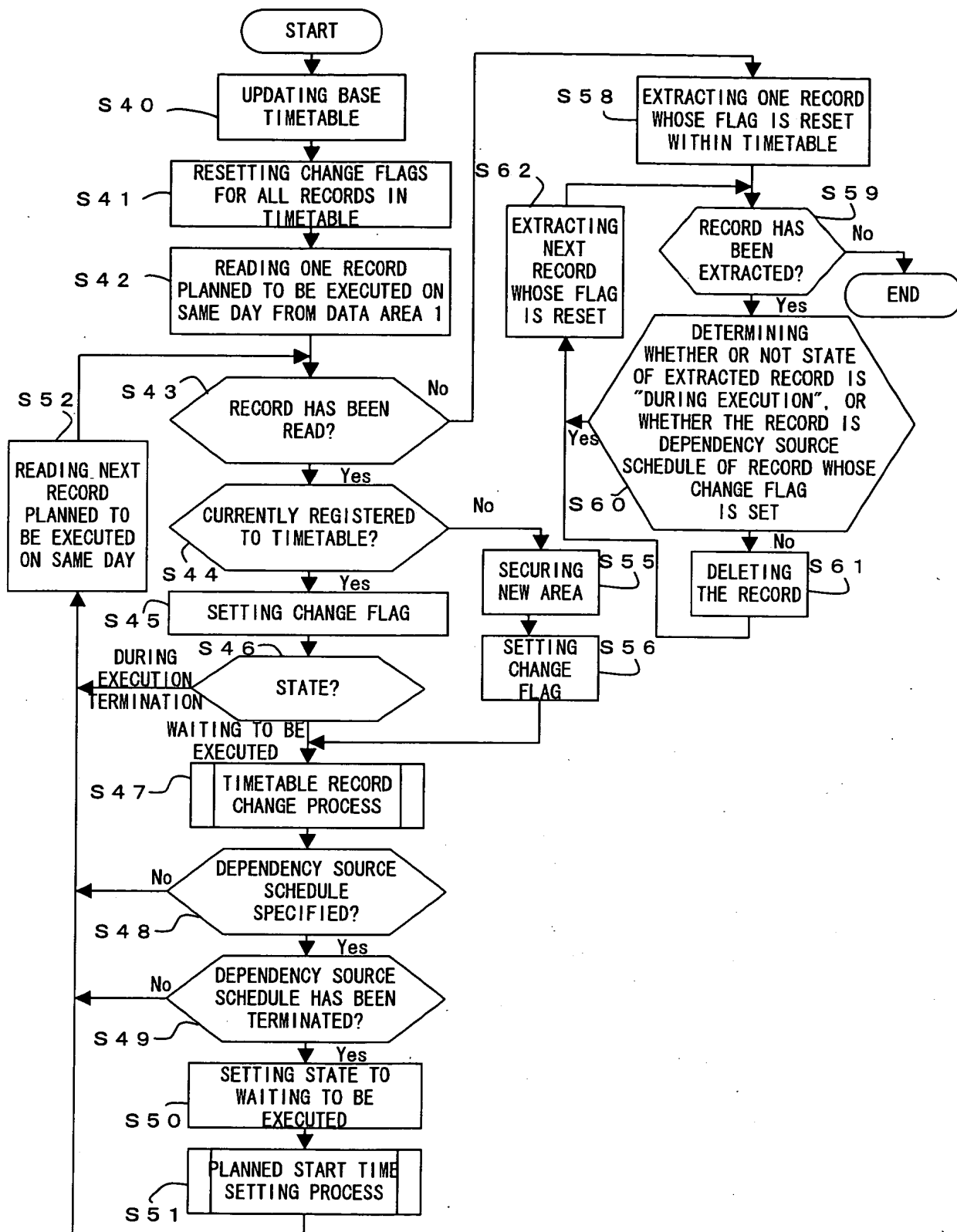


FIG. 14

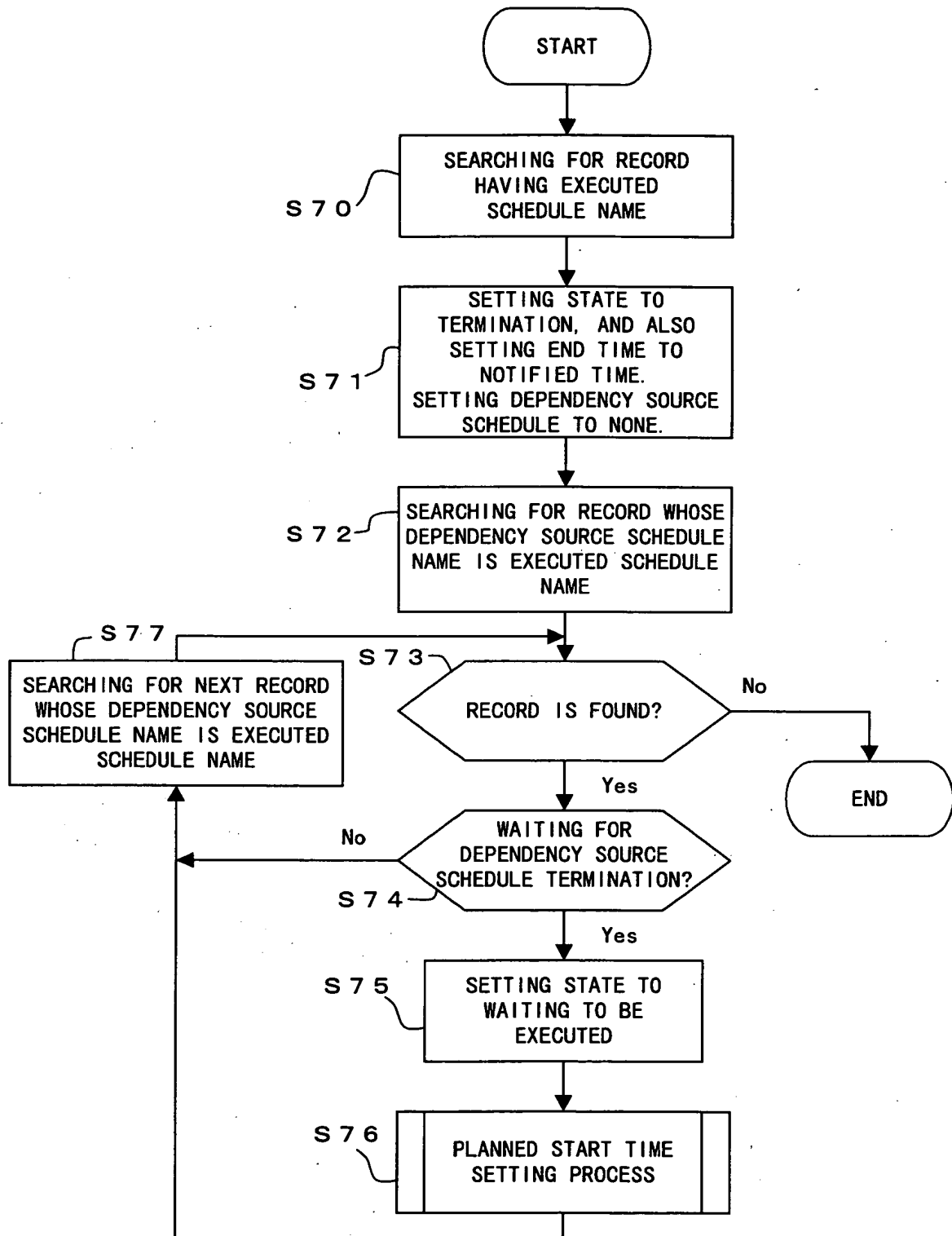


FIG. 15

SCHEDULE NAME	TIME SPECIFICATION CLASSIFICATION	DEPENDENCY SOURCE SCHEDULE NAME	BASE TIME NAME	OFFSET
S1	ABSOLUTE TIME SPECIFICATION	NONE	NONE	19:00
S2	ABSOLUTE TIME SPECIFICATION	S1	NONE	19:40
S3	BASE TIME SPECIFICATION	NONE	B1	00:20 (offset)
S4	BASE TIME SPECIFICATION	S1	B1	00:40 (offset)
S5	RELATIVE TIME SPECIFICATION	S3	NONE	00:40 (offset)
S6	BASE TIME SPECIFICATION	NONE	B1	00:00 (offset)

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09014071 032204
102220 12041850

BASE TIME NAME	BASE TIME
B1	18:00

FIG. 17

	S1	S2	S3	S4	S5	S6
17:50	A	B	A	B	B	A
18:00 (B1)	A	B	A	B	B	C
18:10	A	B	A	B	B	D
18:20	A	B	C	B	B	D
18:30	A	B	D	B	B	E
18:40	A	B	D	B	B	
18:50	A	B	E	B	A	
19:00	C	B		B	A	
19:10	D	B		B	C	
19:20	D	B		B	D	
19:30	E	A		C	D	
19:40		C		D	E	
19:50		D		D		
20:00		D		E		
20:10		E				

FIG. 18

	S1	S2	S3	S4	S5	S6
17:50	A	B	A	B	B	A
18:00	A	B	A	B	B	A
18:10	A	B	A	B	B	A
18:20	A	B	A	B	B	A
18:30	A	B	A	B	B	A
18:40	A	B	A	B	B	A
18:50	A	B	A	B	B	A
19:00 (B1)	C	B	A	B	B	C
19:10	D	B	A	B	B	D
19:20	D	B	C	B	B	D
19:30	E	A	D	A	B	E
19:40		C	D	C	B	
19:50		D	E	D	A	
20:00		D		D	A	
20:10		E		E	C	
20:20					D	
20:30					D	
20:40					E	

A: WAITING TO BE EXECUTED
B: WAITING FOR DEPENDENCY SOURCE SCHEDULE TERMINATION
C: START
D: DURING EXECUTION
E: TERMINATION

FIG. 19

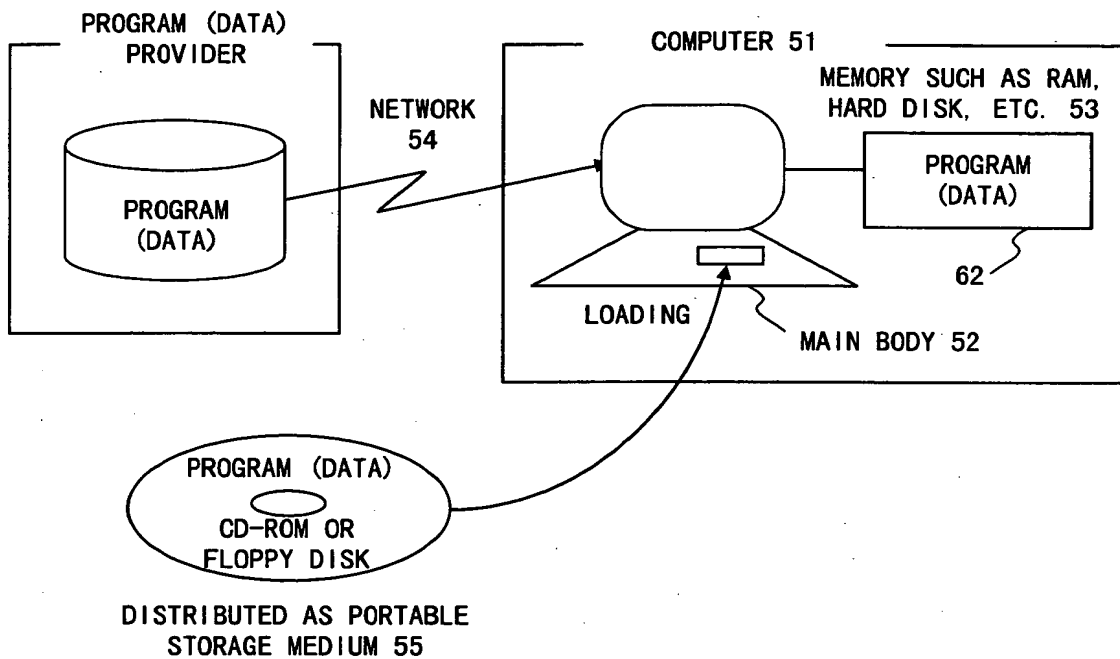


FIG. 20